

CLAIMS

What is claimed is:

1. A system that facilitates concurrent searching across a plurality of sources, comprising:
 - a usage analyzer that determines user accessed items and a content analyzer that stores subsets data corresponding to the items, at least two of the items being associated with disparate sources, respectively; and
 - an indexing component that indexes the data subsets.
2. The system of claim 1, further comprising a search component that in response to a search query, initiates a search across the indexed data, and outputs links to locations of a subset and/or sparse representation of the subset.
3. The system of claim 1, the disparate sources further comprise local or remote data locations including files, folders, applications, images, audio files, appointments, email, and web information.
4. The system of claim 1, further comprising a filter that extracts portions of the accessed items and creates sparse representations of accessed data in a content index.
5. The system of claim 1, the indexer associates metadata with the accessed items, the metadata employed to retrieve the accessed items.
6. The system of claim 5, the metadata includes at least one of a file path, a hyperlink, and a tag.
7. The system of claim 2, further comprising an implicit query that is derived from the search query.

8. The system of claim 1, further comprising a gatherer component that specifies an interface to different content sources in their native format.
9. The system of claim 4, the filter decodes individual file formats and emits a character stream for further processing.
10. The system of claim 9, further comprising a tokenizer component that breaks the character stream into words and provides linguistic processing.
11. The system of claim 10, the linguistic processing includes at least one of date normalization and stemming.
12. The system of claim 1, further comprising a retriever component supporting a query language for accessing stored information.
13. The system of claim 12, the retriever component provides Boolean functions and best match retrieval on full text and metadata properties that enable at least one of phrase, wildcard and proximity searches.
14. The system of claim 1, further comprising a protocol handler to extract individual messages from exchange mail stores, local mail files, and public folders.
15. The system of claim 14, further comprising a component index attachments to email, which generalizes to other container objects.
16. The system of claim 1, further comprising an event component that monitors user and makes determinations with respect to user actions.
17. The system of claim 16, the event component includes to determine user actions or goals.

18. The system of claim 17, the event component employs evidential patterns of user activity including at least one of: a Focus of attention, an Introspection, an Undesired piece of information, and a Domain-specific syntactic and semantic content.
19. The system of claim 1, further comprising a component to process implicit queries based upon potential interest to a user.
20. The system of claim 19, the implicit queries automatically invoke related information actions directed to a user, the information actions associated with a query at hand or a current context.
21. The system of claim 20, further comprising at least one of context-sensitive queries, application-context queries, and item-centric integrations.
22. The system of claim 1, further comprising a component that enables users to share selected electronic files with other users.
23. The system of claim 1, further comprising a component to remove accessed information items.
24. The system of claim 2, the search component employs effective time computations when presenting calendar items.
25. The system of claim 1, further comprising a component to perform background storage operations to processes volatile data.
26. The system of claim 1, at least one of the usage analyzer and the indexer is executed on at least one of a client machine and a server machine, the client and server machines including at least one computer respectively.

27. A computer readable medium having computer readable instructions stored thereon for implementing at least one of the usage analyzer and the indexer of claim 1.
28. A method that facilitates concurrent searching across a plurality of sources, comprising:
 - automatically determining whether a user has contemplated a data source selected from at least two disparate data sources; and
 - automatically indexing the contemplated data source in a computerized index.
29. The method of claim 28, further comprising at least one of automatically monitoring the user and automatically analyzing the data source to determine whether the user has contemplated the data source.
30. The method of claim 28, further comprising providing at least one of explicit query options and implicit query options to access the computerized index.
31. The method of claim 28, further comprising automatically updating a metadata file associated with the data source with at least one of explicit tag information and implicit tag information.
32. The method of claim 28, further comprising providing at least one of a file sharing option, a file scrubbing option, an effective time computation, and a background storage option.
33. The method of claim 28, further comprising automatically filtering the data source to create a sparse representation of the data source.
34. The method of claim 28, further comprising displaying at least one of a timeline visualization and a grid visualization to represent queries derived from the computerized index.

35. A system that facilitates computerized searching, comprising:
 - means for determining when a user has accessed an information item;
 - means for filtering the information item;
 - means for indexing the information item in a content index; and
 - means for querying the content index.
36. A user interface for computerized searching of data, comprising:
 - a display having one or more display objects representing results gathered from information items previously observed by a user; and
 - at least one input option associated with the display to facilitate user queries of the information items.
37. The user interface of claim 36, the queries are launched when filtering objects in the user interface are manipulated or when the user selects return.
38. The user interface of claim 36, further comprising a list view interface.
39. The user interface of claim 36, further comprising a preview showing a portion of a message.
40. The user interface of claim 36, further comprising at least one of a Document Title, a Date, a Rank, an Author, Mail To field, a File Type field, a Mail CC field, a Mail Has Attachment field, a Message Type, a Message Read field, a Path, a Size, and a Title.
41. The user interface of claim 36, the display objects further comprise user selectable filters.
42. The user interface of claim 36, further comprising options for adding custom metadata to items.

43. The user interface of claim 42, further comprising options to supply usage-based metadata that is generated from user events.

44. The user interface of claim 36, further comprising a persistent query that is associated with a local or remote content source, and summary information presented to the user relating to the query.

45. The user interface of claim 36, the display further comprising a timeline visualization of the display objects.

46. The user interface of claim 45, the timeline visualization includes an annotation of at least one of a public event and a personal event to facilitate searching results-related information.

47. The user interface of claim 36, the display further comprising a grid visualization of the display objects.

48. The user interface of claim 47, the grid visualization enables users to explore trends, correlations, and relationships in a large information set.

49. The user interface of claim 47, the grid visualization employs a grid motif to show relationships between attributes of people, topics, and time, wherein users assign one of the attributes to an X axis and another attribute to a Y axis.

50. The user interface of claim 36, further comprising components to present information about items that have been accessed by multiple people in an organization, shared *via* the merging of multiple indices or *via* the indexing of coalesced content.

51. The user interface of claim 50, the components employ privacy mechanisms for restricting the sharing of classes of information or activity, and anonymizing items to remove personal information or associations.

52. The user interface of claim 36, further comprising virtual folders that contain results of predefined, or persistent queries, including queries that have, as part of their definition, temporal or organizational relationships.

53. The user interface of claim 36, further comprising a hierarchy of nested sets of folders of increasing specialization that are invoked to represent the results of queries with increasingly specialization.

54. The user interface of claim 36, further comprising a component to submit a query or an automatically reformulated version of the query to at least one other search engine.

55. The user interface of claim 54, further comprising a component for accessing resources from the Internet, and integrating query results from a personal search engine with results from the other search engine in a displayed result list.

56. The user interface of claim 54, further comprising a component to mark search results coming from outside a personal store, or from a particular store the search results have been retrieved.

57. The user interface of claim 56, further comprising a component to interleave personal results or returned results from another search engine in a separately marked region of a display.